Course Syllabus

Ling 320
Origin and Evolution of Human Language
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Course description

As far as we can tell, only one species has a communicative system of the complexity of human language, and that is humans. By comparing full-blown human language with other systems, we can learn something about how human language arose in prehistory. Recent advances in primate cognition and social behavior, infant cognition and social behavior, archeology, genetics, and other fields allow us to adduce various sorts of evidence, of various degrees of directness, to make hypotheses about the origin and development of human language. In doing so, we can also learn more about human language itself and the nature of the human species.

Some questions we will deal with are:

- What properties does human language have that are similar to those found in communicative systems found in other species?
- What properties does it have that are distinct from other communicative systems?
- How does language relate to properties of the human mind and brain?
- How does the development of the human brain (prenatal, neonatal, and beyond) relate to the evolution of language?
- What is the relation between evolution of the human brain, and all its neural and cognitive capacities, and the evolution of language?

- How do the properties of language relate to the properties of the vocal apparatus and accompanying perceptual apparatus?
- How did human language acquire its current cognitive, structural, articulatory/acoustic, and developmental properties?
- What kinds of evidence can we bring to bear on the above question?
- How long ago did language evolve? In what steps or stages?
- What was early primate life like? What factors might have driven the development of features that distinguish humans from other primates, including those that appear to be underpinnings of later linguistic development?
- What kinds of early hominid species existed, and what were these early hominids like? If they had a communicative system, what properties of modern human language did it have or lack? How does tool use relate to language and what can we infer about hominids' minds based on the tools they left?

If time, we will also deal with the geographic spread of Homo sapiens sapiens and the accompanying spread and divergence of human languages throughout the world in paleolithic and post-paleolithic times.

Objectives

- Acquire an understanding of some of the major issues in the study of the evolution of human language
- Be able to describe some of the principal theories of language origin and development
- Obtain an accurate overview of the basic timeline of hominid evolution and where the points of disagreement are among scientists
- Be able to discuss the principal sources of evidence for hominid evolution and the evolution of language, including the fossil record, comparative primatology, developmental cognition, study of the brain, etc.

- Understand the relation between human communication and animal communication, specifically points of similarity and points of difference
- Acquire basic concepts about social cognition and how it relates to language and language evolution
- Understand the human speech mechanism, including the structure and functioning of the vocal tract and the basics of acoustics of speech
- Understand the basic nature of human cognitive capacities relevant to language and how they might have come into being in the course of evolutionary development
- Understand some basic developmental properties of the infant brain and the developmental path that leads to language in the child
- Practice putting together and giving powerpoint presentations on the topics of the class, including group presentations
- Gain mastery in writing about the topics of the class

Requirements

2 presentations – 1 group presentation, 1 individual - 30% (15 each)
2 presentation write-ups – 1 group, 1 individual - 20% (10 each)
1 short paper on a selected topic - 30%
Participation (presence and contribution to class; can include mini-quizzes) - 15%
Contribution of relevant sources/links, for uploading to the common Canvas resources site - 5%

Sequence of Topics

1. Introduction and overview. Babel and other theories of the origin of language. The Evolutionary hypothesis. Monogenesis and Polygenesis.

2. Animal Communication. Reading: Hockett. Student presentations on animal communication in various species.

3. Social Cognition. Development of shared attention in humans. Ontogeny. Comparison with great ape social cognition. Reading: Tomasello.

4. Evolution of the Vocal Tract. Reading: Lieberman and McCarthy.

5. Big picture and large question: What came first, the Big Brain (modern human brain) or human language? The co-evolution hypothesis and arguments against it. Relation of development of vocal tract to development of the brain. Materials: Lamb Powerpoint (and article).

6. More on human cognitive capacities and their evolution. Tools and causality in humans and other primates. Animal behavior: tool using, understanding causation. Reading: Tomasello and Call (1997); Web pages by Kemmer.

7. Hominid evolution: What do we know about pre-human species? Student presentations on Australopithecines, Homo Erectus, Homo Habilis, Neanderthals, Very early humans, pre-homo sapiens sapiens. Reading: Ian Davidson overview on hominid species.

In addition to the core readings specified above, various web materials on Canvas will be assigned.

References to Readings and other Materials

On the web at http://www.ruf.rice.edu/~kemmer/Evol/refs.html

Class Policies

If you are unable to attend class on a given day, contact me in advance.
For the sake of class atmosphere, please do not use your phones in the classroom, or use your computer for social media or web surfing during the class.

Disabilities

Any student with a disability requiring accommodations in this class is encouraged to contact me after class or in office hours. Contact also the Disabled Student Services office in the Ley Student Center to find out how they can be of further assistance.